

Notice of Allowability

Application No.

10/803,341

Examiner

Jung Kim

Applicant(s)

BELGAIED ET AL.

Art Unit

2132

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10/31/07.
2. ☒ The allowed claim(s) is/are 1,3-29 and 32-58.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

Allowable Subject Matter

1. Claims 1, 3-29 and 32-58 are allowed.
2. The following is an examiner's statement of reasons for allowance: with respect to claims 1 and 3-8, applicant's claimed invention discloses a method for performing a cryptographic function comprising sending a request to perform a cryptographic function from a kernel consumer, determining whether the request is synchronous or asynchronous, and determining which cryptographic provider to use to perform the cryptographic function, and returning the result to the cryptographic provider. Leung in view of Ueno discloses a similar device; however, Leung in view of Ueno does not disclose wherein processing the request comprises: performing the cryptographic function in a kernel consumer context when the request is synchronous; queuing the request when the request is asynchronous and the kernel consumer indicated to queue the request; queuing the request when the request is asynchronous and the kernel consumer indicated not to queue the request, and the request needs to be queued; performing the cryptographic function and returning the result to the kernel consumer after a period of time when the request was queued; and performing the cryptographic function and returning the result to the request to the kernel consumer when the request is asynchronous, the kernel consumer indicated not to queue the request, and the request does not need to be queued.
3. With respect to claims 9-28, applicant's claimed invention discloses a method for performing a cryptographic function comprising obtaining a request to perform a cryptographic function from a kernel consumer by a kernel; performing the

cryptographic function in a kernel consumer context when the request is synchronous; queuing the request when the request is asynchronous and the kernel consumer indicated to queue the request; queuing the request when the request is asynchronous and the kernel consumer indicated not to queue the request, and the request needs to be queued; performing the cryptographic function and returning the result to the kernel consumer after a period of time when the request was queued; and performing the cryptographic function and returning the result to the request to the kernel consumer when the request is asynchronous, the kernel consumer indicated not to queue the request, and the request does not need to be queued. The prior art of record does not disclose this limitation.

4. With respect to claims 29 and 32-57, applicant's claimed invention discloses a computer system for performing cryptographic functions comprising a processor; a kernel consumer executing on the processor and configured to request the cryptographic function, and a kernel executing on the processor and comprising: a cryptographic provider configured to perform the cryptographic function, and an encryption framework comprising: a kernel interface configured to interface between the encryption framework and the kernel consumer, and provider interface configured to interface between the cryptographic provider and the kernel interface, wherein the encryption framework is configured to receive and schedule synchronous and asynchronous requests from the kernel consumer. Leung in view of Ueno discloses a similar device; however, Leung in view of Ueno does not disclose wherein the encryption framework is configured to process the request and returning the result to

the kernel consumer, wherein processing the request comprises: performing the cryptographic function in a kernel consumer context when the request is synchronous; queuing the request when the request is asynchronous and the kernel consumer indicated to queue the request; queuing the request when the request is asynchronous and the kernel consumer indicated not to queue the request, and the request needs to be queued; performing the cryptographic function and returning the result to the kernel consumer after a period of time when the request was queued; and performing the cryptographic function and returning the result to the request to the kernel consumer when the request is asynchronous, the kernel consumer indicated not to queue the request, and the request does not need to be queued.

5. With respect to claim 58, applicant's claimed invention discloses a network system having a plurality of nodes; a kernel consumer executing on the processor and configured to request the cryptographic function, and a kernel executing on the processor and comprising: a cryptographic provider configured to perform the cryptographic function, and an encryption framework comprising: a kernel interface configured to interface between the encryption framework and the kernel consumer, and provider interface configured to interface between the cryptographic provider and the kernel interface, wherein the encryption framework is configured to receive and schedule synchronous and asynchronous requests from the kernel consumer, wherein the kernel consumer executes on any node of the plurality of nodes, wherein the cryptographic provider executes on any node of the plurality of nodes, wherein the provider interface executes on any of the plurality of nodes, and wherein the kernel

interface executes on any node of the plurality of nodes. Leung in view of Ueno discloses a similar device; however, Leung in view of Ueno does not disclose wherein the encryption framework is configured to process the request and returning the result to the kernel consumer, wherein processing the request comprises: performing the cryptographic function in a kernel consumer context when the request is synchronous; queuing the request when the request is asynchronous and the kernel consumer indicated to queue the request; queuing the request when the request is asynchronous and the kernel consumer indicated not to queue the request, and the request needs to be queued; performing the cryptographic function and returning the result to the kernel consumer after a period of time when the request was queued; and performing the cryptographic function and returning the result to the request to the kernel consumer when the request is asynchronous, the kernel consumer indicated not to queue the request, and the request does not need to be queued.

Therefore, claims 1, 3-29 and 32-58 are allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Communications Inquiry

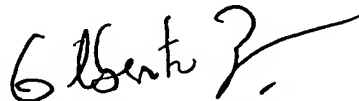
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jung W. Kim whose telephone number is 571-272-3804. The examiner can normally be reached on M-F 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jung W Kim
Examiner
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